

## CLAIMS

1. A splicer mechanism for joining the tail  
of tape being fed from one roll to the leading edge of  
5 tape that will be fed from another roll, comprising:
- (a) a frame, defining a pathway along  
which tape travels as it is being  
fed;
  - (b) a pair of arms each having a first  
10 end which is rotatably attached to  
said frame and a second end having a  
post projecting outwardly therefrom,  
one of said arms being located on  
each side of said pathway;
  - (c) said arms being movable between a  
15 first position where said posts are  
located proximate said pathway and a  
second position where said posts are  
located further away from said  
20 pathway, said arms being normally  
biased toward said second position;
  - (d) a catch mechanism which holds said  
arms in said first position; and
  - (e) a release mechanism which releases  
25 said catch mechanism when a portion  
of said tape containing a release

indicia passes through said pathway,  
thereby allowing said arms to move to  
the second position.

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2. The splicer mechanism of claim 1 wherein  
said release indicia is a bulge placed in  
said tape and said release mechanism  
comprises a trigger element which said  
tape passes, said trigger element being  
arranged such that it is displaced when  
said bulge passes thereby.

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3. The splicer mechanism of claim 2 wherein  
said trigger element is mechanically  
linked to said catch mechanism.

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4. The splicer mechanism of claim 2 wherein  
said trigger element activates a proximity  
switch which causes solenoids to release  
said latch mechanism.

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5. The splicer mechanism of claim 3 or 4  
wherein said trigger element is a movable  
roller.

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6. The splicer mechanism of claim 5 wherein  
said trigger element further comprises a  
fixed roller and said tape passes between  
said movable roller and said fixed roller.
7. The splicer mechanism of claim 1 wherein  
said release indicia is a segment of said

tape which is optically distinguishable from the remainder of said tape and said release mechanism includes an optical reader which is configured to recognize said segment.

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8. A method of joining the tail of tape being fed from one roll to the leading edge of tape which will be fed from another roll comprising:

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(a) providing the splicer mechanism of claim 2;

(b) placing said arms in the first position and engaging said catch mechanism;

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(c) providing a first roll of tape having a bulge located in its trailing edge;

(d) feeding tape from said first roll along said pathway;

(e) providing a second roll of tape;

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(f) looping the leading edge of the tape from the second roll around the post of one of said arms and back through the loop and tightening it to form a first slip knot around said post;

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(g) looping the leading edge of the tape from said second roll around the tape

from the first roll and back through the loop to form a loose knot around the tape from the second roll;

(h) looping the leading edge of the tape from said second roll around the post of the other arm and back through the loop and tightening it to form a second slip knot around said post;

(i) so that when said bulge in the trailing edge of the tape from the first roll engages said trigger element to release said catch mechanism and allow said arms to start rotating toward the second position, said loose knot is tightened onto said trailing edge of the tape from said first roll and said slip knots are pulled off of their respective posts.

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